AMENDMENTS TO THE CLAIMS

30. (CURRENTLY AMENDED) A radio on a single IC chip, comprising:
an antenna section for transmitting and receiving a plurality of high frequency signals;
a down-conversion section, coupled to said antenna section, for down-converting a first high frequency signal of said plurality of high frequency signals;
a bandpass filter coupled to the down-conversion section;
an up-conversion section, coupled to said antenna section, for up-converting an information signal to a second high frequency signal of said plurality of high frequency signals; and
a shaping filter coupled to an input of said up-conversion section.

31. (PREVIOUSLY PRESENTED) The radio of claim 30, wherein said up-conversion section and said down-conversion section comprise a single variable controlled oscillator.

32. (PREVIOUSLY PRESENTED) The radio of claim 31, wherein said single variable controlled oscillator is integrated into said single IC chip.

33. (PREVIOUSLY PRESENTED) The radio of claim 32, wherein single variable controlled oscillator comprises at least one resonator.

34. (PREVIOUSLY PRESENTED) The radio of claim 30, wherein the transmission and the reception of said plurality of high frequency signals is performed in accordance with a time-division duplex mode.

35. (PREVIOUSLY PRESENTED) The radio of claim 30, wherein said down-conversion section down-converts at least one of said plurality of high frequency signals to at least one low intermediate frequency signal.

36. (PREVIOUSLY PRESENTED) The radio of claim 35, further comprising a discriminator coupled to said bandpass filter for detecting a received data signal from said at least one low intermediate frequency signal, wherein said discriminator is integrated into said single IC chip.

37. (PREVIOUSLY PRESENTED) The radio of claim 30, wherein said down-conversion section, said bandpass filter, said up-conversion section, and said shaping filter are integrated into said single IC chip, wherein bandpass filtering operations are performed by components integrated into said single IC chip.